

***Coptis trifolia* (L.) Salisb.**  
threeleaf goldthread  
Ranunculaceae (Buttercup Family)

**Status:** State Threatened

**Rank:** G5S1

**General Description:** Adapted from Hitchcock et al. (1964): A perennial forb with trifoliate leaves and leaflets that are rhombic-ovate, sharply crenate-dentate and very obscurely lobed. The one-flowered scapes are  $1\frac{1}{2}$  to  $4\frac{3}{4}$  in. (4 to 12 cm) tall. The whitish sepals are narrowly lanceolata to spatulate, acute to obtuse and  $\frac{1}{4}$  in. (5 to 10 mm) long. The petals are about half the length of the sepals, fleshy, and hollowed, nectariferous at the tip, and without a flattened blade. The follicles are  $\frac{1}{4}$  in. (5 to 10 mm) long and the stylar beak is  $\frac{1}{16}$  to  $\frac{1}{8}$  in. (2 to 4 mm) long.

**Identification Tips:** There are four species of *Coptis* in the Pacific Northwest. *Coptis trifolia* has three leaflets that are less than  $\frac{3}{4}$  in. (2 cm) long and not noticeably lobed, petals that lack a blade beyond the nectary, and one-flowered scapes. The other three species of *Coptis* have mostly more than three leaflets (or the leaflets are more than  $\frac{3}{4}$  in. (2 cm) long) and their leaflets are often lobed at least  $\frac{1}{3}$  to  $\frac{1}{2}$  their length, petals with a linear blade extending beyond the basal gland, and scapes that are often more than 1-flowered.

**Phenology:** Identifiable from May to July.

**Range:** This species is found from Greenland across North America to Alaska, including Canada and the eastern United States. *C. trifolia* has also been seen across northeastern Asia to northern Japan. In Washington, *C. trifolia* occurs in Clallam County.

**Habitat:** *Coptis trifolia* often grows in habitats ranging from muskegs to deep woods. The Washington population is growing in a cedar bog. Associated species include bog Labrador tea (*Ledum groenlandicum*), deer fern (*Blechnum spicant*), black crowberry (*Empetrum nigrum*), bracken fern (*Pteridium aquilinum*), salal (*Gaultheria shallon*), sphagnum (*Sphagnum* spp.), western red cedar (*Thuja plicata*), bluejoint (*Calamagrostis canadensis*), false lily of the valley (*Maianthemum dilatatum*), rush (*Juncus* spp.), sticky tofieldia (*Tofieldia glutinosa* ssp. *brevistyla*), and broadleaf starflower (*Trientalis borealis* ssp. *latifolia*).

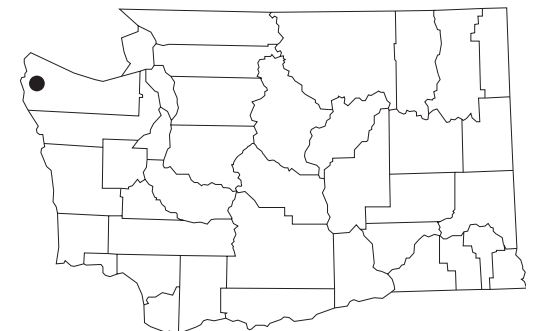
**Ecology:** This taxon prefers shaded, cool, moist areas with relatively infertile soils that drain poorly, are acidic, and have a deep, not well-

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Known distribution of  
*Coptis trifolia*  
in Washington



● Current (1980+)  
○ Historic (older than 1980)

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Photo by Eleanor Saulys



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decomposed organic layer. *C. trifolia* appears to have a low tolerance for disturbance.

**State Status Comments:** Known from one occurrence in Olympic National Park, Washington. Very little information is known about this species.

**Inventory Needs:** Additional inventory should be undertaken for this species, in particular within bogs in Clallam County.

**Threats and Management Concerns:** Current threats include timber harvest, hydrologic change, and soil disturbance. High intensity fires and collection are also possible threats.

**References:**

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1964. *Vascular Plants of the Pacific Northwest Part 2: Salicaceae to Saxifragaceae*. University of Washington Press, Seattle, WA. 597 pp.

NatureServe. 2003. NatureServe Explorer: An online encyclopedia of life [web application]. Version 1.8. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: November 7, 2003).

*Coptis trifolia* Information Page. <http://www.rook.org/earl/bwca/nature/herbs/coptis.html>. (Accessed: November 13, 2003).